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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/762,589

03/30/2001

Basil Lui

108572

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02/11/2005

OLIFF & BERRIDGE, PLC

P.O. BOX 19928

ALEXANDRIA, VA 22320

EXAMINER

GARCIA OTERO, EDUARDO

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 02/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/762,589

Applicant(s)

LUI, BASIL

Examiner

Eduardo Garcia-Otero

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7 and 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,5-7 and 19-21 is/are allowed.
- 6) ☒ Claim(s) 13-18, 22-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION: Final Action

Introduction

1. Title is: SEMICONDUCTOR DEVICE SIMULATION METHOD AND SIMULATOR.
2. First named inventor is: LUI.
3. Claims 1-3, 5-7, and 13-24 are pending.
4. Priority is claimed to foreign application United Kingdom 9913915.6 filed 6/15/1999.
5. Applicant's Amendments were received 12/27/2004.

Index of Important Prior Art

6. Tsukada refers to US Patent 5,266,825.
7. Batra refers to US Patent 6,066,517.
8. Dilger refers to US Patent 5,989,947.

Applicant's Remarks

9. ALLOWABLE SUBJECT MATTER. The claims contain substantial allowable subject matter, as discussed below.
10. CLAIM OBJECTIONS. The prior claim objections are withdrawn due to Applicant's amendments.
11. CLAIM REJECTIONS. The prior claim rejections are withdrawn due to Applicant's amendments.
12. NEW CLAIMS. Some of the new claims are rejected for the reasons discussed below.
13. The new 35 USC 101 rejections are format related, and relatively easy to overcome.
14. However, the new 35 USC 112 rejections and 35 USC 102(b) rejections are very substantial.
15. In dependent claims 19-24, the term "comprising" is interpreted by the Examiner as meaning "further comprising". Please amend appropriately.

Claim Interpretation

16. Claim 13 states "**A semiconductor device manufactured based on the leakage current determined by the method of claim 1**". Thus, claim 13 is interpreted as a "product-by-process" claim.
17. Note MPEP 2113 states "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the

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product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Thus, claim 13 is a product (or "machine" per 35 USC 101), and depends from claim 1 which is a process claim ("An automated simulation method"). Also see MPEP 2114 regarding functional language.

18. The process itself, as discussed in claim 1, is very detailed. However, there is not any discussion of how said detailed process steps would result in any structural limitations that would distinguish said product-by-process semiconductor device from any other semiconductor device, for example the transistor of Tsukada discussed below.

19. Claims 14-18, and 22-24 are interpreted similarly to claim 13.

Claim Rejections - 35 USC § 102(b)

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action: A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

21. Claim 13-18, and 22-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsukada US patent 5,266,825.

22. In claims 13-18, and 22-24, the product "semiconductor device" is the product of product-by-process claims, and is disclosed by Tsukada Abstract "A thin film transistor". See MPEP 2113.

Conclusion

23. Claims 1-3, 5-7, and 19-21 are allowed. Note the clear and very detailed logical steps (or detailed equations) in claims 1-3, 5-7, and 19-21. None of the prior art of record renders these claims anticipated or non-obvious.

24. The Examiner suggests that canceling the other pending claims would very probably result in an allowance.

Response to Amendments-FINAL OFFICE ACTION

25. Applicant's amendments necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened

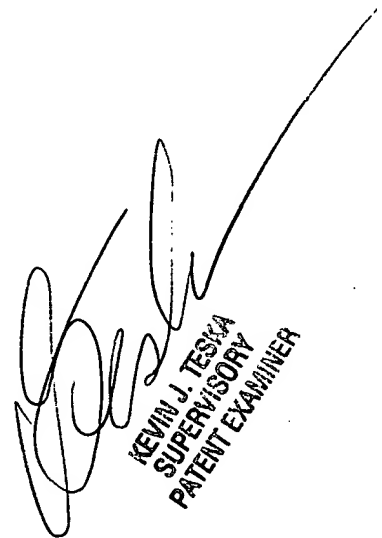
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statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Garcia-Otero whose telephone number is 571-272-3711. The examiner can normally be reached on Monday through Thursday from 9:00 AM to 8:00 PM. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kevin Teska, can be reached at 571-272-3761. The fax phone number for this group is 703-872-9306.

* * * *



KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER